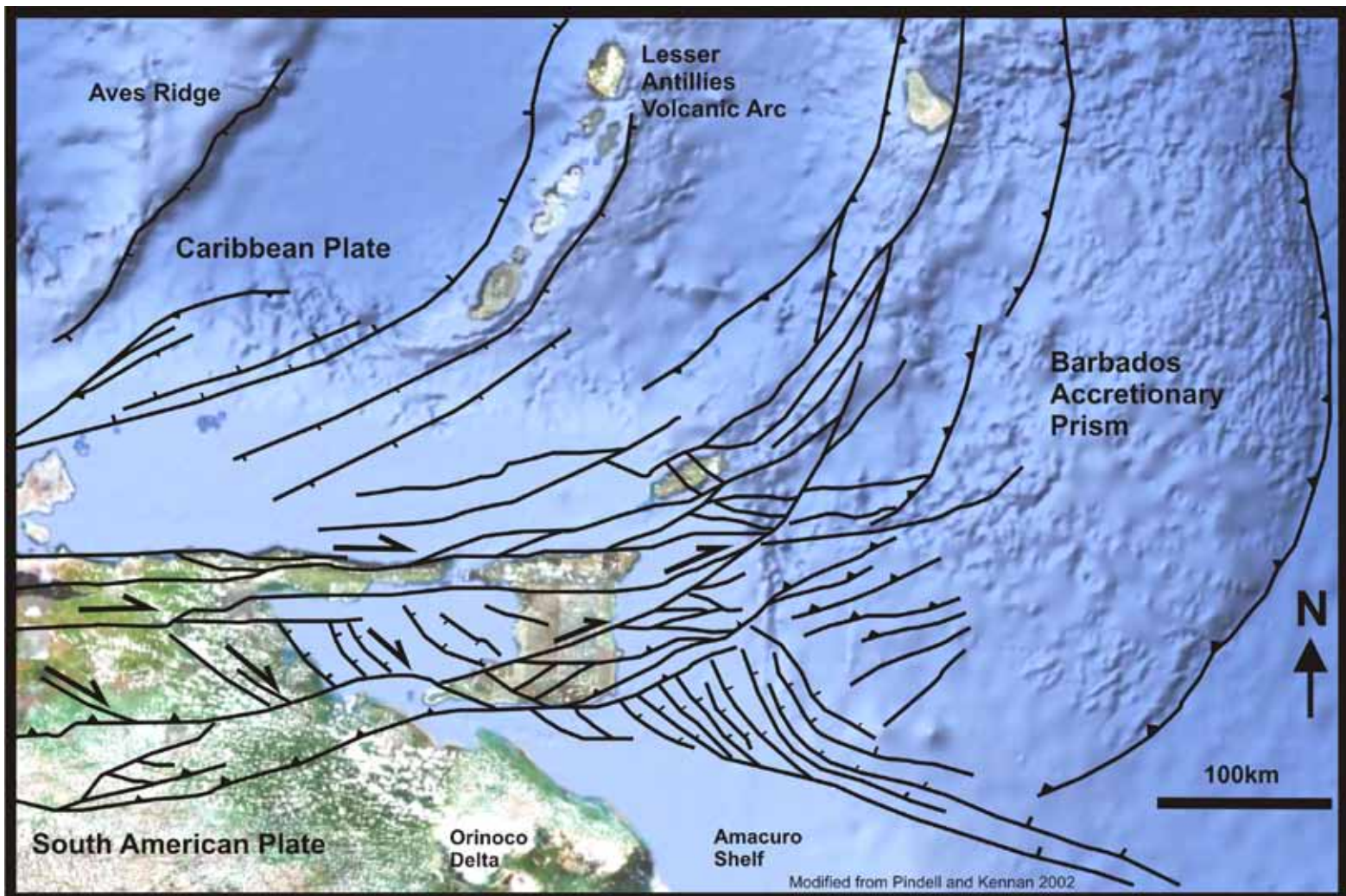


# Tectonic History

The islands of Trinidad and Tobago lie at the junction between the Lesser Antilles volcanic island arc, and the South American continent. The evolution of Trinidad began in the Mesozoic with the rifting of the Pangea supercontinent; with sediments being deposited on highly attenuated continental crust on the north-eastern margin of the South American plate. The interaction between the Caribbean plate and the South American plate as the Caribbean plate migrated eastward, relative to the South American plate, created a series of diachronous leading edge fold and thrust belts and foredeep basins; and trailing edge pull apart basins across the entire northern margin of south America. The island of Tobago forms part of a remnant Cretaceous island arc, and is allochthonous terrain that was translated to the northeast of Trinidad by the motion of the Caribbean plate.



Present day regional tectonic map of the greater Trinidad area.

---

This plate tectonic interaction since the Mesozoic has resulted in the greater Trinidad area being positioned on every possible plate boundary setting; resulting in a complex mix of basement involved to detached – extensional, contractional, shear and vertical kinematics of deformation. However, this tectonic history drove the sedimentation patterns that allowed for the deposition and maturation of prolific source rocks, overlain by deep marine to paralic reservoir rocks and provided the trapping mechanisms all in the right sequence, to make the northern margin of South America one of the most prolific hydro-carbon areas in the world. The island of Trinidad shares part of this since it forms the eastern-most extension of the Maturin sub-basin of Eastern Venezuela; a province whose hydrocarbon resources are estimated to be of the order of many tens of billions of barrels of oil and several trillion cubic feet of natural gas.